

surface side of the electronic component by means of a tool; and

subsequently bonding the electronic component to the circuit board by hardening the insulating resin of the 5 anisotropic conductive layer interposed between the electronic component and the circuit board while correcting warp of the board and crushing the bump with a pressure force of not smaller than 20 gf per bump applied to the electronic component against the circuit board and heat 10 applied from the upper surface side of the electronic component or heat applied from the board side or heat applied from both the electronic component side and the board side, so that the electrode of the electronic component is electrically connected with the electrode of 15 the circuit board.

According to a sixth aspect of the present invention, there is provided an electronic component mounting method as defined in any one of the first through fifth aspects, wherein the electronic component has a 20 plurality of electrodes, a solid anisotropic conductive film sheet that has a configurational dimension smaller than an outline dimension defined by joining the plurality of electrodes of the electronic component is stuck as the anisotropic conductive layer to the circuit board before 25 the positional alignment and thereafter subjected to the

positional alignment, and at the bonding time, the insulating resin interposed between the electronic component and the circuit board is hardened by pressurizing the electronic component against the circuit board with 5 heat applied to the anisotropic conductive film sheet while concurrently correcting the warp of the circuit board, so that the electronic component is bonded to the circuit board.

According to a seventh aspect of the present 10 invention, there is provided an electronic component mounting method as defined in any one of the first through sixth aspects, wherein the gold bump that has an approximately conically shaped tip is formed on the electrode of the electronic component by means of the 15 capillary that has a chamfer angle of not greater than 100° when a gold ball is formed by an electric spark at a tip of a gold wire similarly to the wire bonding in forming the bump on the electronic component and a tip shape provided with no flat portion to be brought in contact with the gold 20 ball.

According to an eighth aspect of the present invention, there is provided an electronic component mounting method comprising:

25 forming a ball at a tip of a metal wire by an electric spark similarly to wire bonding and forming a bump

on an electrode of an electronic component by means of a capillary by the formed ball;

mounting the electronic component on a circuit board by aligning in position the electrode of the electronic component with an electrode of the board with interposition of an anisotropic conductive layer in which an insulating resin mixed with an inorganic filler is mixed with a conductive particle without leveling the formed bump;

subsequently hardening the insulating resin of the anisotropic conductive layer interposed between the electronic component and the circuit board while correcting warp of the board with a pressure P_1 applied as a pressure force to the electronic component against the circuit board and heat applied from an upper surface of the electronic component by means of a tool heated to a specified temperature; and

subsequently bonding the electronic component to the circuit board while alleviating a stress when hardening the insulating resin of the anisotropic conductive layer by reducing the pressure force to a pressure P_2 lower than the pressure P_1 after a lapse of a specified time, so that the electrode of the electronic component is electrically connected with the electrode of the circuit board.

According to a ninth aspect of the present